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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,091	07/28/2006	John M. Stencel	1284-001	4355
1009 7590 10/27/2009 KING & SCHICKLI, PLLC 247 NORTH BROADWAY LEXINGTON, KY 40507			EXAMINER KWOK, HELEN C	
			ART UNIT 2856	PAPER NUMBER
			MAIL DATE 10/27/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/588,091

**Applicant(s)**

STENCEL, JOHN M.

**Examiner**

Helen C. Kwok

**Art Unit**

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Status of Application***

1. The finality of the last Office action mailed March 18, 2009 has been withdrawn after Applicant's request for a Pre-appeal Brief filed August 18, 2009. A new Office action is set forth below.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the claim is indefinite since it is unclear how the acoustic emission is created or formed for the passive sensor to generate an output representative of the acoustic emission. Please clarify.

In claim 13, the claim is indefinite since it is unclear how the acoustic emission is created or formed in the foam for detection. Please clarify.

In claim 17, the claim is indefinite since it is unclear how one or more acoustic emissions are created or formed in the mix for detection. Please clarify. Furthermore, what basis is used to determine whether an additional amount of the agent is required? Is the detected acoustic emissions used for this determination? Please clarify.

In claim 20, line 4, the phrase "the sample" lacks antecedent basis. In line 4, the phrase "an amount of the agent proportional to the amount added to the sample" is not clear on its meaning. Is the "an amount of the agent" a different amount of agent or is this amount of agent referring to the amount of agent in line 2 of this claim or line 4 of claim 17. Please clarify. Also, the phrase "the amount added to the sample" is not clear. What "amount"? There is no "amount" added to the "sample".

In claim 21, the claim is indefinite since it is unclear how the acoustic emission is created or formed in the foam for detection. Please clarify.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 4, 8, 10-14, 16 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,153,396 (Genser).

With regards to claims 1, 4, 8 and 10-12, Genser discloses a rotating evaporator comprising, as illustrated in Figures 1-3, a plurality of passive sensors 14,15 for generating an output signal representative of an acoustic emission associated with a foam M of an object (i.e. liquid F) [Note: In column 17, lines 34-44, claim 19 claims foam

sensors 14,15 can be acoustic sensors. In column 11, lines 57-61, the foam sensor 15 receives a signal SB that is a direct measure of the foam in the medium M of the rotating container where vibrations of the rotating container are caused by the mass distribution of the mass moment of the medium M and the sound vibrations can be measured by acoustic sensors (column 13, lines 14-20). Depending on the signal SB of the foam sensor 15, the control and/or regulating mechanism 60 controls the rotating speed of the rotating container according to the foam detected in the rotating container (column 11, lines 62-67). Furthermore, in column 12, lines 6-16, different types of foam sensors can be used - i.e. infrared sensors, radar sensors, camera and along with acoustic sensors]; a controller 60 in communication with the passive sensor for receiving the output signal and providing a response; a precursor material (i.e. a column of liquid F) includes a heater (not illustrated, but disclosed in column 11, lines 10-14) for heating the precursor material is susceptible to foaming wherein the passive sensors are positioned at/above/below the surface of the liquid F (column 12, lines 15-27 teaches the sensor can be positioned adjacent or attached at different locations while in column 11, lines 43-45, the foam sensors 14,15 are positioned inside of the rotating container where the foam MF is formed). (See, column 11, line 39 to column 14, line 27).

With regards to claim 2, Genser further discloses a signal for activating a source of foam suppressant positioned adjacent the liquid. For instance, Genser suggests a control signal SC to activate a drive means 6 (i.e. the Examiner is considering the drive means 6 as the source of foam suppressant - column 11, lines 15-28). The drive

means 6 (which is the "source") controls the speed of the rotating container that controls the evaporation process of the medium M where the foam MF is developed is positioned adjacent the liquid (as observed in Figure 1). In other words, the drive means 6 is the "source of foam suppressant" since it controls (i.e. suppresses) the amount of foam to be formed within the medium M.

With regards to claims 13-14 and 16, the claims are commensurate in scope with the above claims and are rejected for the same reasons as set forth above.

With regards to claims 21-23, the claims are commensurate in scope with the above claims and are rejected for the same reason as set forth above.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 7,153,396 (Genser) in view of either U.S. Patent 6,874,356 (Kornfeldt et al.) or U.S. Patent 5,469,854 (Unger et al.).

With regards to claims 3 and 15, Genser does not explicitly teach the response provided from the controller includes a signal to activate an alert (i.e. alarm, display). It would have been obvious to an artisan in the art to employ some type of indicator (i.e.

alarm or display) to provide the operator the response signal received from the controller to observe and monitor the results obtained.

With regards to claim 9, Genser teaches many kinds of passive sensor; however, the reference does not explicitly disclose a hydrophone. One of ordinary skills in the art would have recognize the advantages and desirability of employing a hydrophone for the passive sensor since this concept is well known in the technology of acoustic emissions. At the same time, the references, Kornfeldt et al. and Unger et al., suggest measuring foam from a hydrophone. (See, column 1, lines 47-58, column 4, lines 33-50, column 8, lines 14-36, column 9, lines 26-34 of Kornfeldt et al.; column 9, lines 26-34 of Unger et al.). It would have been an obvious design expedient to a person of ordinary skills in the art at the time of invention to employ a hydrophone as the passive sensor since this is a well known concept as suggested by Kornfeldt et al. and Unger et al. to use a hydrophone in the field of endeavor of foaming environment. Furthermore, whether using a hydrophone or other type of passive sensor would not change and/or alter the operation and/or performance of this passive sensor, namely to generate an output signal representing acoustic emission associated with foaming.

8. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 7,153,396 (Genser) in view of U.S. Patent 6,484,568 (Griffith et al.).

With regards to claim 5, Genser does not explicitly suggest a system for testing a mineral admixture for making concrete. Griffith et al. discloses an apparatus for testing foamed fluids comprising, as illustrated in Figures 1-6, foaming apparatus for making a

concrete/cement with the foam and having a vessel 15 for receiving the mineral admixture. (See, column 3, line 32 to column 5, line 28). It would have been well known to an artisan in the art to have readily recognize the advantages and desirability of employing the system for testing a mineral admixture for making concrete/cement as suggested by Griffith et al. in combination with the apparatus of Genser wherein the characteristics of the concrete/cement can be monitored to maintain steady pressure on the foamed fluid so that the transfer process can provide a constant density of the foamed fluid from sample to sample. (See, column 1, line 48 to column 2, line 8).

With regards to claim 7, Griffith et al. suggest an agitator 30 associated with the vessel 15. (See, column 4, lines 30-43).

#### ***Allowable Subject Matter***

9. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 17-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

#### ***Response to Amendment***

11. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helen C. Kwok/  
Primary Examiner, Art Unit 2856  
October 23, 2009